INSECT SURVEY REPORT

ASHLEY NATIONAL FOREST (NORTH SIDE)

FALL - 1935.

SUMMARY OF INSECT SURVEY

Timber type Lodgepole Insect causing damage Dendroctonus ponderosae* North Side Ashley National Forest

Sept.10th to Oct.13th,1935.
Dates of cruise

F. Fred. Sargent
Forest Ranger

(1) Unit No.	Name	(2) % of Cruise	(3) No. trees treated Spring / Fall (Year)	(4) No. new attacks	(5) % of new attacks	(6) Character of infestation	(7) Acres Treated Spring / Fall (Year)	(8) Acres to be treated Spring / Fall (Year)	(9) Estimated cost of treating Total	Per A	Per Tree
1.	Lower Gilbert Cr. Total area,11,000 A. Est.Acres per N.A.37 Strip acres cruised, 373.5 N.A. on strip - 10	3.4	Spring,1933 733 Spring,1934 1379 Fall, 1934 715 Spring,1935 189	294	32.5	(b) Moderate	Spring,1933 3520 Spring,1934 7040 Fall, 1934 3094 Spring,1935 690	2000 Spring,1936	$800.	.40	4.00
2.	Lower E.Fk.Smiths Fk. Total area,3,400. Est.A. per N.A.-22.5 Strip acres cruised, 112.1 N.A. on Stp.5.	3.3	Spring,1934 436 Spring,1935 270	151	55.9	(b) Moderate.	Spring,1934 2240 Spring,1935 2230				
3.	Dry Creek. Total area, 2,120 Est.A. per N.A.- 31 Strip acres cruised, 61.6 N.A. on strip - 2.	2.9	Spring,1931 29 Fall,1931 197 Spring,1932 117 Spring,1935 437	68	15.5	(b) Moderate.	Spring,1931 80 Fall, 1931 800 Spring,1932 1260 Spring,1935 2100				

* See letter of May 26th,1931, signed by James C.Evenden, Entomologist, addressed to Regional Forester and letter of June 23,1931, signed by James C.Evenden, addressed to Regional Forester.

Ashley N.F. (North Side)

SUMMARY OF INSECT CONTROL.

(1) Unit No.	Name.	(2) % Of Cruise	(3) No. trees treated Spring / Fall (Year)	(4) No. new attacks	(5) % of new attacks	(6) Character of infestation.	(7) Acres Treated Spring / Fall (Year)	(8) Acres to be treated Spring / Fall (Year	(9) Estimated cost of treating Total	Per A	Per Tree
4.	Cottonwood Creek.	2.9	Spring,1931 331	172	40.8	(b) Moderate.	Spring,1931 1180				
	Total area,4040 A.		Fall, 1931 73				Fall, 1931 360				
	Est.A.per N.A.- 24		Spring,1932 388				Spring,1932 1720				
	Strip acres cruised, 118.		Fall, 1934. 421				Fall, 1934 2689				
	N.A. on strip - 5										
5.	Sage Creek	2.7	Spring,1931 101	372		(b) Moderate.	Spring,1931 1160	Spring,1936 2000	$1000	.50	2.71
	Total area,7,360 A.		Spring,1932 223				Spring,1932 2020				
	Est.A.per N.A.-19.7										
	Strip acres cruised, 197.4										
	N.A. on strip - 10										
6.	Louse Creek.	3.5	Spring,1933 174	114		(b) Moderate.	Spring,1933 2280				
	Total area,2,460 A.										
	Est.A.per N.A. - 21										
	Strip acres cruised, 86.										
	N.A. on strip - 4										
7.	Upper Gilbert Creek	2.3	None	None			None	None			
8.	Upper E.Fk.Smiths Fk.	2.9	None	34		(c) Light	None	None			
9.	Henrys Fork	2.9	Spring,1927 30	172		(b) Moderate.	Spring,1927 600	None			
	Total area,23,880 A.		Spring,1928 13				Spring,1928 840				
	Est.A.per N.A. - 138										
	Strip acres cruised, 687.7										
	N.A. on strip - 5										
10.	West Beaver Creek.	2.5	None	40		(c) Light	None	None			

Ashley N.F.(North Side)

SUMMARY OF INSECT CONTROL

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11.	Middle Beaver Creek	2.4	None	916		(a)Heavy	None				
	Total area,14,384 A.										
	Est.A.per N.A. - 16		Treatment not recommended on entire M.Beaver Unit. Treatment is recommended								
	Strip acres cruised,		on Georges Park Sub-Unit of M. Beaver. Figures following for Georges Park								
	328.5		Sub-Unit are included in the totals for the M.Beaver Unit as a whole.								
	N.A. on strip - 22										
13.	Georges Park - Sub-Unit of M. Beaver	2.5	None	720		(a) Heavy	None	Spring,1936 2,040	$1020.	.50	1.41
	Total area,2,040 A.										
	Est.A.per N.A. - 2.8										
	Strip acres cruised,										
	52.										
	N.A. on strip - 18.										
12.	Burnt Fork	2.5	None	520		(a) Heavy	None				
	Total area, 25,084 A.										
	Est.A. per N.A. - 48.2		Treatment not recommended on entire area but is recommended on Beaver Meadows								
	Strip acres cruised,		Sub-Compartment of the Burnt Fork Unit.Figures following for same are included								
	612.5		in the totals for the Burnt Fork Unit.								
	N.A. on strip - 13										
14.	Beaver Meadows - Sub-Unit of Burnt Fork	2.5	None	520		(a) Heavy	None	Spring,1936 5,880	$2352.	.40	4.52
	Total area, 5,880 A.										
	Est.A. per N.A. - 11.3										
	Strip acres cruised,										
	144.										
	N.A. on strip - 13										
15.	Sheep Creek - Lodgepole	2.5	None	40		(c) Light	None	None			
	Total area, 25,140 A										
	Est.A. per N.A.-628.5										
	Strip acres cruised,										
	608.5.										
	N.A. on strip - 1										

Ashley N.F.(North Side)

SUMMARY OF INSECT SURVEY

(1) Unit No.	Name.	(2) % of Cruise	(3) No. trees treated Spring	Fall (Year)	(4) No. new attacks	(5) % of New attacks	(6) Character Of infestation	(7) Acres Treated Spring	Fall (Year)	(8) Acres to be treated Spring	Fall (Year)	(9) Estimated cost of treating Total	Per A	Per tree
16.	Beaver - Carter Cr,	2.5	None		40		(c) Light	None		None				
	Total Area, 28,540 A													
	Est.A. per N.A. - 713													
	Strip acres cruised,													
	725.5.													
	N.A. on strip - 1													
17.	Elk Creek	2.5	None		None		None	None		None				
18.	Eagle Creek	2.5	None		None		None	None		None				

COSTS INSECT SURVEY PROJECT - ASHLEY NATIONAL FOREST (North Side)

Inclusive dates work carried on 9-10 to 10-13-35 Fred. Sargent
Forest Supervisor, Ranger

Date this report made, November 10,1935.

Insect responsible, Dendroctonus ponderosae

	Contributed time and expense	Project funds	Total Cost.
Salaries and wages	$137.22	$722.51 NET	$ 859.73
Expenses Forest Officers	14.70		14.70
Subsistence Supplies		166.63	166.63
Eqipment - purchase, repair, freight, etc.		9.77	9.77
Gas and oil		11.20	11.20
Truck hire		95.80	95.80
Horse hire		30.00	30.00
Miscellaneous		2.30	2.30
Total cost of project	$151.92	$1038.21	$1190.13

No. man days contributed 19

No.man days paid from project funds 195 3/4

Total man days used 214 3/4

Total of 322.3 miles line run.

Cost per mile, $3.69

HISTORY AND PERSONNEL OF PROJECT.

The fall insect survey of all the lodgepole type on the North side of the Ashley National Forest began on September 10th, 1935, and terminated on October 13th, 1935.

Each cruiser carried a compass with Jacob Staff, tally register for recording his paces, a hand axe for testing bug trees, and tatum containing map and forms for recording data. Bug trees found (New attacks only) were entered directly on daily cruiser's sheets and the location noted. No account was taken of red tops.

Strips were run in cardinal directions generally, at regular intervals through sections to secure a 2½% cruise.

Starting points were located from section corners and quarter corners in surveyed country and the cruisers were required to check in to the nearest convenient corner before starting their return strip towards camp and at all other corners which were convient to their strip. In unsurveyed country, starting points were located from stream, trail and road crossings.

Some difficulty was encountered in routing the cruisers from one camp to another so as to accomplish a 2½% cruise and still have their strip terminate somewhere near camp. This difficulty was added too somewhat on account of running all strips across drainages. In some cases a greater per cent of cruise was obtained due to line changes in the field where the cruiser ran out of lodgepole mature type and also short sections along the Utah - Wyoming State line and along the old Ft.Bridger Military Reservation line.

With the exception of the Ft.Bridger Addition to the Ashley N.F., no dependable type map was available for the balance of the north side of the forest.

The high country was covered first. A pack string was employed ten days to move camp and the packer served as cook. Camp was moved practically every day while the pack string was employed. Camp sites, unit control lines and the approximate boundaries of the lodgepole type were designated on the field map by District Ranger Sargent.

After the pack string was discharged a privately owned Ford pick-up truck was hired to move camp with and to haul the men to and from work on the balance of the job.

District Ranger Sargent assisted Chief-of Party Floyd Henderson train the crew the first two days. The entire crew were together the first day and pacing was checked until all cruisers were proficient.

On September 30th, Mr.Tom Mathews of the Regional Office, Mr.Baumhoffer of the Bureau of Etomology and Ranger Sargent visited the crew, then on the East Fork of Smiths Fork. Mr. Mathews expressed his satisfaction of the crew's performance and offered several good suggestions for further improving the work. Mr. Baumhoffer collected some beetle specimens on Dry Creek.

History and personnel of project, Con't.

The personnel of the crew on starting were; Floyd Henderson, Chief-of-Party, John Van Vorhis, Joe Beach, H.O.Jackman, and E.Y. Megeath, cruisers, Lloyd Taylor, packer and cook. John Van Vorhis left for school the last of September and was replaced by Leslie Taylor. After Loyd Taylor was discharged as packer and cook, E.Y.Megeath took his place as cook and Harry D. Buckley was hired as cruiser.

The Chief-of-Party assisted the cook in moving camp, planned all work for the cruisers, entered the data collected by the cruisers on the field or progress map daily, scouted country in advance to better enable him to plan the strips and to cut out any non-host areas etc., and cruised himself when not occupied with the above mentioned duties.

Henderson, Beach, Jackman, Leslie Taylor and Buckley had previously acted as crew formen on insect control operations and the balance of the crew had work/on insect control previous to the survey also.

Since the crew was made up of experienced men in insect control work and were well supervised it is believed the data obtained is accurate and reliable as could be obtained under the circumstances.

Instructions issued by James C. Evenden for insect surveys were followed.

Fred. Sargent

District Forest Ranger

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Insect Control - Ashley
Fall Insect Survey Report - 1935.

NARRATIVE SECTION FOR INSECT CONTROL UNITS.

UNIT NO.1 - LOWER GILBERT CREEK.

Character of timber:

The lower part of the unit next to the forest boundary embracing about five square miles is a mixed stand of lodgepole, aspen and blue spruce. The most of it has been burned over and the mature timber is found in patches surrounded by aspen, pole and sapling stands. The ground cover consists of dwarf jumiper, bearberry and in places considerable down timber from past fires.

The balance of the area for the most part is covered with mature lodgepole timber of fair quality for tie timber and mine props and does not contain very much decadent timber. There are a few pole stands of varying ages contained within the main body of the mature type. The ground cover is lighter and consists of more bearberry and not so much juniper as found lower on the unit.

This unit was added to the forest in 1931 with the Ft.Bridger addition and considerable saw timber has been removed from it in years past under Interior Department regulations.

Topography:

This unit contains two very steep ridges within the main drainage. With these exceptions the unit as a whole has rather gentle slopes and low rounded hills.

Character of beetle attacks:

The trees found on this area were heavily attacked, attacks averaging over 12 feet in height and trees averaging 12" D.B.H. The broods were large and healthy. Not over two or trees in a group were found,however.

Time for control operations:

Fall control work is preferred to spring in order to reduce fire danger and is also cheaper for this reason. However if further control operations are performed on this unit the area to be treated, which is small, could be covered in the spring before any fire hazard exhists.

History of epidemic:

Bark beetles have been working in this unit for the past 75 years or more as evidenced by the markings on old down timber. It is safe to assume they were on the increase during the past three or four drought years as

Narrative section, contd. (Gilbert Cr)

noted by the "red tops" found and the increased new attacks surrounding them. However, control operations carried on in 1933, 1934 and 1935 have reduced the hazard of a serious epidemic to a minimum.

Recommendations:

Seven of the ten new attacks found on this unit were in the middle of the area and not on the part of the unit treated in the fall of 1934, or spring of 1935.

In order to insure a good clean-up of this unit, it would be well to treat approximately 2000 acres in the middle of the unit where 70% of the new attacks were found. Figuring this area seperately from the unit as a whole, the attacks would run about one to every ten acres or approximately 200 bug trees.

UNIT NO.2 - LOWER EAST FORK OF SMITHS FORK.

Character of timber:

The mature timber in this unit is very patchy, fire-scarred and cat-faced, having survived several fires. Mature timber and reproduction both are heavily infested with mistletoe.

The soil is shallow and rocky. The ground cover is sparse consisting mostly of bearberry and juniper.

Topography:

The unit is about equally divided by the East Fork of Smiths Fork which flows to the north. The ridges are rather low with moderate slopes, with east and west exposures.

Character of attacks:

The attacks found were moderate extending not more than 15 feet up the bole. Three single trees and one group of 2 were found.

History of epidemic:

The bark beetles have been working in this unit for years but the infestation and attacks have been lighter than any other unit surrounding it. Poor host material and the same being scattered probably is the main reason for this.

Most of the infestation has been confined to about two sections of ground on the lower part of the unit next to the forest boundary.

Recommendations:

No further treatment is recommended, for the present.

The unit was treated in the spring of 1934 and spring of 1935 and a marked reduction noted on the number treated in 1935 (270) over 1934 (436). Most of the attacks treated in 1935 were in and around a 500 acres burn which occurred in 1934. The trees attacked were scorched or partially

E.Fk.Smiths Fk. - Cont'd.

killed by the fire. The attacks generally were light, quite a few trees being treated by peeling without felling the trees. Assistant Regional Forester Farrell and Mr. James C. Evenden visited the area in the spring of 1935 while operations were in progress and thought the unit did not need further treatment and the crew was released.

UNIT NO.3 - DRY CREEK

Character of timber:

The type is mostly pure lodgepole although there are a few patches interspersed with aspen. The mature lodgepole is cat-faced and fire-scarred the best saw timber having been removed. These patches of mature timber are interspersed with pole stands of varying ages.

History of infestation:

The bark beetle have been working in this unit for many years as evidenced by the markings on down timber. First control operations were started in 1931, "hot spots" only being treated at that time due to lack of funds and the need for treating heavier infested areas first. The entire unit was covered in the spring operations of 1935 and a reduction of 88% obtained based on this survey.

50% of the trees treated in the spring of 1935 were in or adjacent to about 160 acres of the Smiths Fork burn which reached over into Dry Creek.

Recommendations:

Further treatment on a project scale is not recommended. However a winter camp of ERA workers will be located near by and will be doing some timber stand improvement work on the unit and will treat any bug trees encountered.

UNIT NO.4 - COTTONWOOD CREEK

History of infestation:

The age of this infestation is the same as for units previously described. Infested trees treated,have been found pretty evenly distributed over the unit. Control operations were carried on in 1931,1932, and 1934. It is believed a very good clean-up job was obtained in 1934 and some few areas not treated then were thoroughly spotted out and no bugs found.

Character of attacks:

Attacks found were good healthy broods and extended up the trees 15 to 20 feet, One single and four in one grpup were tallied.

Recommendations:

Further treatment on a project scale is not recommended unless the infestation shows signs of epidemic proportions later. It is recommended that ERA workers treat the trees found and scout the surrounding country.

Narrative section, Cont'd.

UNIT NO.5 - SAGE CREEK

Character of timber:

The lower portion of the unit is a mixed stand of Lodgepole, aspen, blue spruce, Douglas fir, and the upper part is almost pure lodgepole. About one sixth of the area is covered with a good stand of saw timber estimated to be about 3½ million board feet. There are several good thrifty stands of poles suitable for mine props. The mature timber types as well as the older pole stands are interspersed with stands of reproduction.

The ground is not as shallow and rocky as on the other units previously described. There is quite a dense cover of juniper and bearberry on the lower portion running to sparse on the upper part.

Topography:

The slopes on Sage Creek are moderate and rolling. The area between the main creek and the East Fork is flat and level.

History of infestation:

Age of the infestation is the same as the other units described. It has been confined mostly to the lower portion of the unit, and very few attacks have been found on the upper part. There is no evidence on the area to show that the infestation has been greater than at present.

Character of beetle attacks:

Attacked trees found were singles and in groups of three and four. They were all on east exposures where most of the trees have been treated before. They were moderate heavy attacks, healthy broods, and extended up the trees 15 to 20 feet. Some of the trees attacked were thrifty trees.

Recommendation:

It is recommended that about 2000 acres on the lower portion of this unit be treated in the spring.

UNIT NO.6 - LOUSE CREEK

General description of the Sage Creek Unit applies to this one.

Recommendations:

Further control operations on a project scale are not recommended but if control operations are carried on in the Sage Creek Unit a detail should be dispatched to the Louse Creek Unit to treat the trees located by the survey and scout the surrounding country for more.

Narrative section, Cont'd.

Units Nos.,7, 8, and 10 - UPPER GILBERT CREEK; UPPER EAST FORK SMITHS FK WEST BEAVER CREEK

No new attacks were found on Upper Gilbert Creek and only one each on the other two units. These were all light butt attacks.

UNIT NO.9 - HENRYS FORK

A small epidemic occurred on this unit at the upper end of Henrys Fk Park probably reaching it's peak in 1925. Approximately 800 trees were killed on an area covering about 400 acres. This area was treated in 1927 and 1928 and since that time no new attacks have been discovered although it has been carefully scouted every year.

The four new attacks found on this unit were located several miles distant from this area being on the West Fork of Henrys Fork. They were single trees and widely scattered.

Further control operations on this unit are not deemed necessary.

UNIT NO.11 - MIDDLE BEAVER

This unit as a whole seems to be quite free of bark beetles and treatment on the entire area is not recommended. However there is a small infested area where the attacks have been centrallized and this has been sub-divided from the main drainage and will be taken up seperately.

Unit No.13 - Sub-Unit of Middle Beaver to be known as GEORGES PARK UNIT.

Character of timber:

The timber on this area is mostly pure lodgepole stands although there is some Douglas fir on the lower portions mixed in with the lodgepole. There is not much decadent timber but the mature timber is not of good merchantable quality being short and rough. It is interspersed with stands of reproduction.

Topography:

The main drainages are to the west and to the north. It contains two steep ridges with north and south exposures. The north exposures are covered with lodgepole mature timber, where most of the new attacks have been located and the south exposures are covered with sagebrush. The country immediately around Georges Park is quite flat and rolling.

History of infestation:

A few old bug trees both down and standing are to be found on the area indicating that the beetles have been in the unit for some years. However, there is no evidence to show that there has been an epidemic or that they have been on the increase until probably the last two or three drought years.

Character of beetle attacks:

The new attacks found were heavy hits and healthy broods. Height of

Narrative section, Cont'd.

attacks run from 8 feet to 20 feet. Some thrifty growing trees were heavily attacked. Most of the new attacks found were on a north slope west of Hoops Lake and to the south of the Hoops Lake road, in a strip of timber averaging about 1½ miles long by ¼ mile wide.

Recommendations:

It is recommended that this area comprising about 2000 acres be treated the first thing in the spring or just as soon as operations can be started economically.

UNIT NO. 12 - BURNTFORK CREEK

This unit as a whole like Middle Beaver is quite free from bark beetles and treatment on the entire area is un-necessary, however there is a more-or less centrallized infestation around the Beaver Meadows area which has been blocked off for treatment.

The description of the timber, history of the infestation and character of attacks related under the Georges Park Unit can be applied here. The topography is not quite so rough as the Georges Park unit and the slopes are more moderate. Eight heavy attacks, six in one group was found by District Ranger Sargent in addition to what the survey shows.

Recommendations:

It is recommended that the area as out-lined on the map be treated. It is believed however, that after this area is more thoroughly scouted out that the area to receive 100% treatment can be considerably reduced, over what is shown.

MANILA RANGER DISTRICT - NO.1

UNIT NO.15 - SHEEP CREEK-LODGEPOLE, UNIT NO.16 - BEAVER-CARTER CREEKS, UNIT NO.17 - ELK CREEK, UNIT NO.18 - EAGLE CREEK.

Only two infested trees were found on the entire district. Some old bug killed trees were found at the edge of the Yellow Pine type in the vicinity of Elk Park, where some treating had been done in the Yellow Pine.

A few "red tops" were located in the Eagle Creek Unit but no previous attacks to these were found in large groups.

Respectfully submitted,
November 13,1935.

E. Fred. Sargent
District Ranger

This report was compiled jointly by Floyd Henderson, Chief-of-Party and District Ranger, E.Fred Sargent.